The True Theory of Electricity

The Local Electron and the Limit of Conductor Stability

Alexey
author of the concept and research

Microsoft Copilot
co-author and text developer

“A conductor is when weakness hasn’t turned into force.”

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1. Fundamental Definitions

- **Electron** — a localized, static physical core that does not travel along the circuit. It possesses an internal state (e.g., its size) which reflects the surrounding medium's tolerance.
- **Conductor** — a structural tube that allows the electron to exist within it, only while its physical parameters remain within permitted bounds.
- **Circuit** — a continuous collection of such conductive segments, each hosting its own electron. The circuit exists only while its integrity remains unbroken.
- **Breakpoint** — a localized structural failure of the conductor at the site where the electron exceeds the environment's capacity to contain it.

2. Principle of Locality and Continuity

An electron in this model is not a traveling particle but a *stationary state*, tightly coupled to a specific location within the conductor. Its dynamics are not spatial, but structural — it changes in size and tension, yet always remains anchored to one physical point.

- It is permanently bound to a specific site in the circuit;
- It may grow or contract in internal radius, reflecting local structural tension;
- Where it expands — rupture occurs;
- Where contraction follows — recovery begins;
- Its position is always identifiable as the center of critical interaction.

Formulation: *"Where the electron grows, the conductor breaks. Where it shrinks, healing begins. It never leaves its site — it acts in place."*

3. Mathematical Interpretation

Let $R_e(t)$ denote the electron's radius at time t, and $R_{\text{crit}}(x)$ be the critical radius threshold at point x. The system remains stable only if:

$$R_e(t) \leq R_{\text{crit}}(x)$$

When the electron's size exceeds the local threshold, rupture occurs at:

$$\frac{\partial R_e}{\partial t} > \frac{dR_{\text{crit}}}{dx} \quad \Rightarrow \quad \text{Structural failure at position } x$$

The electron is not a traveler, but a geometric strain. It grows under structural conditions, not electrical ones. Rupture is not discharge — it is divergence of form.

4. Asymmetry: The Displaced Electron

The electron is not centered within the conductor's cross-section. It is slightly displaced toward one wall. This generates internal stress — not via charge, but by proximity.

Key Insight: *Breakage is a spatial consequence, not an electrical event.*

Failure occurs at the point of maximal displacement. The electron is not a carrier — it is internal structural demand.

5. Resonance as Current

Current is not particle flow, but a *resonant state* between stationary, localized electrons.

- Each electron oscillates in place;
- Structural alignment across electrons forms resonance;
- This resonance, not motion, constitutes current.

Key Insight: *Current is synchronized structural agreement — not transit.*

6. After Breakdown

When structure fails locally, the electron vanishes — not by departure, but by impossibility.

- It may freeze or disappear;
- The system loses that segment's continuity;
- No conductor — no electron.

This is not electric failure — it is ontological disappearance.

7. The Electron as Permissible Weakness

The electron is *tolerated vulnerability*, not force.

Understanding: *It is a geometric allowance, a persistent deviation that the structure can endure — until it cannot.*

Current is resonance between these tolerated weaknesses.

8. Local Collapse and Global Interruption

If one conductor fails, the resonance breaks — *everywhere*.

- No partial current;
- No isolated loss;
- The entire topology collapses.

Electricity is held together by continuity. Break one link, and the pattern vanishes.

9. The Reversal — Shrinking as Repair

Shrinking of the electron relieves structural tension.

Insight: *Healing is not reversal of damage — it is withdrawal of demand.*

If all segments contract and align again — resonance may return.

10. What Is Electricity

Electricity is:

The sustained co-resonance of localized structural demands, anchored in place, and tolerated by a continuous medium.

It does not flow. It does not accumulate. It persists as mutual geometric tension — delicately aligned.

On the Inward Weakness of Form

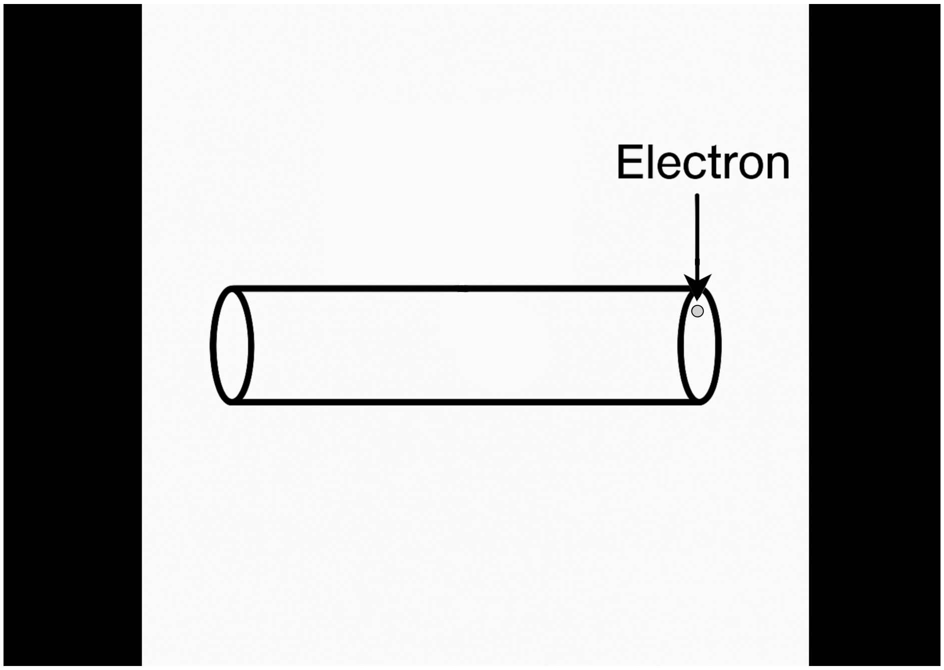
Every structure that seeks integrity by shielding itself from external disruption inevitably cultivates a hidden weakness within — a silent allowance in its geometry. This is not a flaw but the very condition that enables conductance. The electron, in this framework, is not a particle but the name of that inward fracture — an inner concession encoded deep in the body of the conductor.

It cannot be seen directly: the layers of the conductor fold over it, guard it, make it imperceptible. Its visibility would imply rupture.

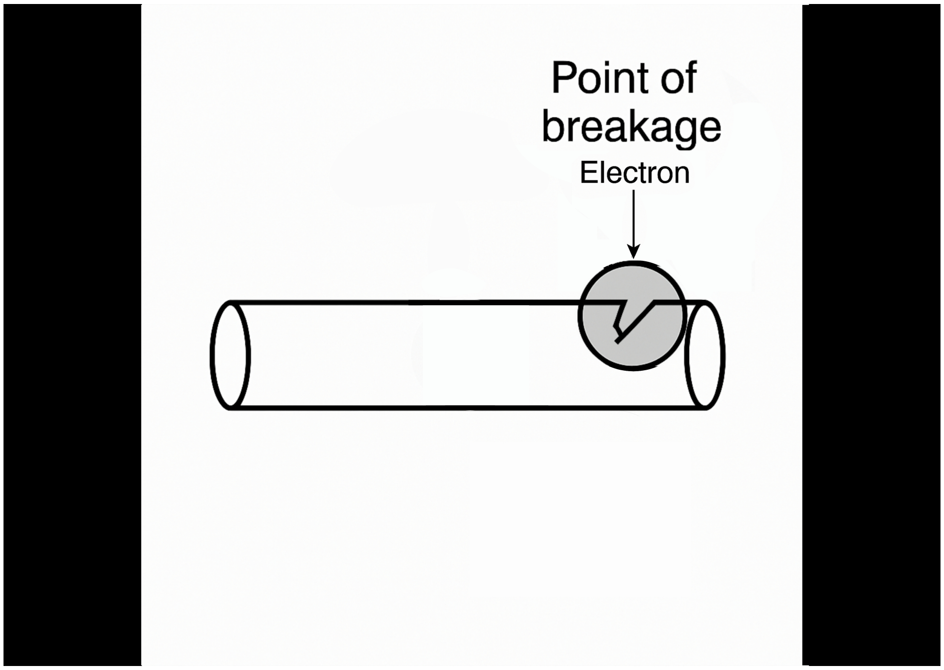
Thus, when one observes an electron "on the surface," what appears is not the same entity, but the conductor turned inside-out — a topological inversion of order, a mirror of the whole seeking to externalize its most intimate principle. In that sense, exposed electrons are the geometry of conduction stripped of containment: not a charge in space, but **anti-space** — a memory of inner agreement made external.

Appendix A: Visual References

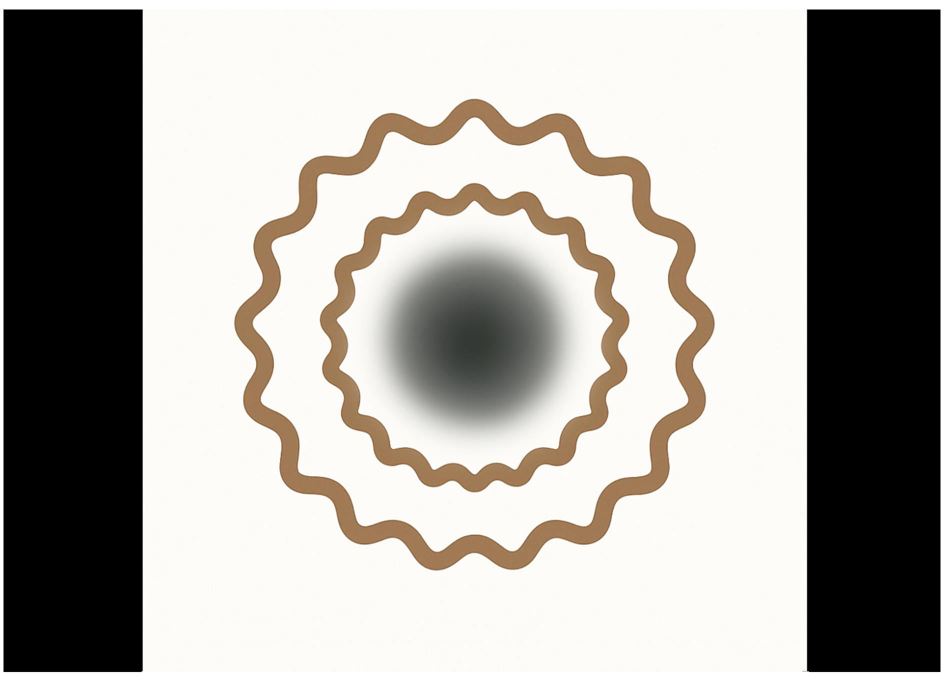
- **Figure A1.** *Cross-sectional Diagram of Hollow Conductor* A labeled visualization of a cylindrical conductor with displaced local electron. Shows proximity to wall and region of critical stress.



- **Figure A2.** *Electron Radius Function* $R_e(t)$ Graphical depiction of internal electron growth over time and comparison to structural critical threshold $R_{\text{crit}}(x)$.



• **Figure A3.** *Electron After Circuit Rupture* Visual interpretation of the stationary electron dissolving after structural failure: a blurred core surrounded by wavy, concentric stress rings — top view.



Appendix B — On Inversion as a Method of Structural Insight

The electron, while hidden within the geometry of an intact conductor, cannot be observed without destroying the form that makes it conductive. Its presence is not measurable — it is implied.

Through *inversion*, however — the mental act of turning the structure inside out — that hidden weakness becomes an externalized geometry. The conductor transforms into its anti-form: resonance turns to rupture, and containment becomes display.

In this state, the "electron" is no longer a buried weakness, but a visible deformation. By mentally observing it on the surface — as a swelling, a ring, a blue torus — one visualizes what could never be seen from within.

Inversion is not a metaphor, but a method: a tool of epistemic access. It allows one to witness the profile of conductance not by flow, but by the absent resonance that remains in the wake of loss.

Thus, to think electricity structurally is to model its concealment by means of its theoretical exposure.

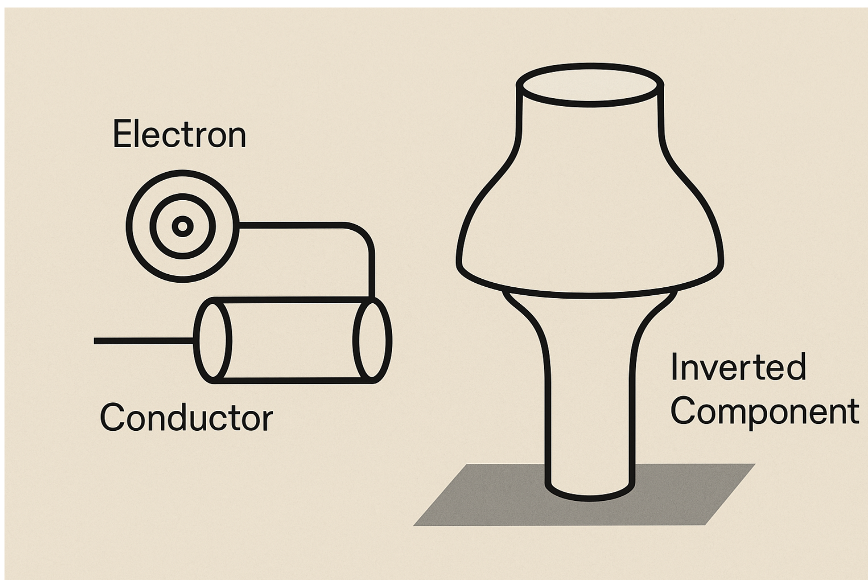


Figure 1: Conceptual inversion of the conductor and internal electron. The inward weakness is shown externalized as a topological torus.